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The Golden Age and the Second Globalization in Italy

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Abstract

After the Golden Age, Italy experienced increasing difficulties in adjusting its economy to the changing external context and to the requirements for sustaining catch-up growth at a higher level of economic development. The adjustment issue is common to advanced countries but the difficulties experienced in Italy look particularly severe. Cushioned by inflation and devaluation, growth remained relatively high in the 1970s. In the subsequent decade, in spite of improved conditions for addressing macroeconomic disequilibria structural adjustments were neglected. Major supply side reforms were eventually implemented in the aftermath of the 1992 crisis. Nevertheless, in the second half of the decade growth fell below the EU average. These necessary reforms fell however short of what was required. Participation in EMU did not help as far as the improvement of growth prospects was concerned. In the last section some of the economic and meta-economic factors explaining the ineffectiveness of the reform process are briefly explored.

Keywords: catching-up; economic growth; economic reform; productivity performance

JEL classifications: N14, O52.

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1. Introduction

This paper seeks to describe and explain Italy's growth performance in the period since World War II. We develop an interpretation of catch-up growth from an initial position where the level of per capita income was well below that of the leading economies and then explore the experience of recent decades where the issue becomes one of further modernization to maintain a strong position among the elite. Economic policy decisions, in particular those made in response to challenges emerging from the external economic environment, have played a major role in determining productivity performance through their impact on the quantity and quality of investment and innovation, and an evaluation of their part in growth outcomes is our central concern.

An important starting point for our analysis is the proposition that the process of catch-up growth typically entails a series of ongoing reforms with the danger that at some point the political economy of the next step in modernization becomes too difficult. As modern growth economics stresses (Aghion and Howitt 2006), the institutions and policy choices that can galvanize a far-from-frontier economy differ in many ways from what is appropriate for a close-to-frontier economy. In particular, in the latter case stronger competition in product markets and high-quality education become more important. Similarly, as new technologies come along, institutions and policies may need to be reformed. Yet, making the requisite adjustments may be problematic and achieved only slowly and incompletely such that catch-up growth falters. The constraints of the historical legacy are important in this context.

The international economic environment affects growth performance in several important ways although its impact will depend upon the details of the domestic policy response and interactions with domestic institutions. It follows that each country's performance will have a common component based on external circumstances and an individual component based on its own distinctive behaviour shaped by history and politics, even though ideas as to what is 'best-practice' policy are strongly correlated across the OECD countries.

Key aspects of developments in the world economy most obviously include high-profile shocks to aggregate supply (such as oil-price rises) and to aggregate demand (for example, financial crises). Dealing with these macroeconomic disturbances can entail policy choices with long-term supply-side consequences. In turn, the extent of policy discretion depends on the international economic architecture of monetary arrangements, treaty obligations etc. which influence the prospects for export-led growth and the extent of globalization. As globalization proceeds, changes in the international division of labour imply the need for structural change and this places a premium on flexibility in domestic markets. Finally, technological change, which overwhelmingly comes from other countries' R & D, provides opportunities for faster growth but exploiting them well may depend on policy reform. Across the world, the diffusion of, and convergence in, the use of technology has speeded up and has been about three times as rapid post-1950 compared with pre-1925 (Comin *et al.* 2006).

The international economic environment with which the Italian economy interacts has been transformed in the last sixty years. The general trajectory has been towards globalization, i.e., the greater economic integration of capital and product markets especially within Europe but also across the world as a whole, starting from a position of very low capital mobility and trade protectionism following the disruptions of the Great Depression and World War II. Tables 1 and 2 reflect these trends.

Table 1 shows a big decline in trade costs during the postwar period; these trends are dominated by reductions in protectionist barriers rather than declines in transport costs. This is apparent from the variations for Italian trade with different partners which reveal that European integration has been the most powerful influence on trade costs. The EEC stimulated both 'juggernaut' and 'domino' effects which consolidated the original trade agreement through increasing the weight of business favouring further liberalization and encouraging both enlargement and multilateral tariff reductions (Baldwin 2006).

Table 2 reflects the very low level of international capital mobility in the early postwar period when OECD countries, including Italy, generally controlled capital movements very tightly while making their macroeconomic trilemma choice for a combination of independent monetary policy and a fixed exchange rate under the auspices of the Bretton Woods international monetary system (Obstfeld and Taylor 2004). From the 1980s, the globalization of capital markets accelerated sharply and Italy moved to full capital-account liberalization by the 1990s, a very different policy stance compared with the early 1950s.

After World War II, growth of world trade by volume was very strong; it outstripped world GDP growth and averaged 7.9 per cent during 1950-1973 (WTO 2008) even though the world average decline in trade costs was only about 2 per cent prior to 1970 in a period when trade liberalization mainly concerned OECD manufacturing. From 1973 to the eve of the current crisis, world trade growth slowed to 4.8 per cent per year but was still much faster than GDP growth. A striking feature of these years was the emergence of a new international division of labour in which Asian countries became much more important as exporters of manufactures while the shares of Europe and North America contracted sharply (Table 3). This reflected Asian success in putting in place policies and institutions that promoted rapid catch-up growth, first in Japan, then in the Asian Tigers followed by China and India (Table 4). Adjustments to this new exporting prowess were required, especially of those countries like Italy where revealed comparative advantage was positively correlated with that of dynamic Asia (Rae and Sollie 2007).

Table 4 reports that the period from the early 1950s to the first OPEC oil shock, the so-called Golden Age of European growth, was one where the world economy as a whole grew fast. These were the years of the Bretton Woods system of pegged exchange rates and, quite unlike the interwar period, an era when OECD countries were largely free from financial crises and macroeconomic turbulence (Bordo 1993). It was an ideal opportunity for countries with undervalued exchange rates, faced with buoyant export demand, to industrialize and catch up (Boltho 1996). Conversely, the stagflation of the 1970s, driven by adverse aggregate supply shocks, was an environment that posed great challenges for macroeconomic policymakers who faced difficult trade-offs between objectives. For many European countries, including Italy, the policy framework that eventually emerged was a trajectory towards a single currency via the European Monetary System of the 1980s and

1990s. This was an era of slower macroeconomic growth but, after the 1980s, a combination of good luck in terms of the absence of adverse shocks and the adoption of inflation-targeting policies produced macroeconomic stability, the so-called Great Moderation (Stock and Watson 2005).

Fast European growth in the 1950s and 1960s was based on policies and institutions which facilitated high rates of investment and the diffusion of American technology in the era of Fordist manufacturing. Broadly speaking, this was a period where, to use the terminology of Hall and Soskice (2001), 'co-ordinated market economies' prospered. This was generally a period of greater government intervention in terms of regulation, state ownership and industrial policy. In later decades, growth opportunities centred more on the services sector and the diffusion of information and communications technologies (ICT). This seems to have been an era which placed a greater premium on flexible adjustment in labour and product markets and on intangible capital accumulation rather than on massive investment in physical capital (Nicoletti and Scarpetta, 2005; Timmer *et al.* 2010). In this era, the 'liberal market economies' were better placed. However, as ideas of 'best practice' in microeconomic policy changed, there was a general change of emphasis among OECD countries towards competition and privatization policies.

To a considerable extent, Italy has shared in these general European trends. At the same time, it is clear that in some respects the Italian experience differs. With regard to institutions, as Hall and Soskice (2001) note, Italy has represented an 'ambiguous case', neither CME (German-style) bank-based nor an LME (American-style). Concerning policy responses, the Italian approach to coping with the stagflationary shocks of the 1970s resulted in a relatively high inflation economy and led to the build-up of a high ratio of public debt to GDP in the 1980s. (Fig.1) Obviously, the question of economic performance in the South marks out Italy as a special case. In terms of growth outcomes, the key feature is that, as a far-from-frontier economy in the age of Fordist manufacturing, Italy outperformed during the Golden Age but, as a close-to-frontier economy in the ICT era, Italy has disappointed over the last twenty years.

This highlights the general question of whether Italy was more in need of policy reform than its European peer group after the Golden Age or whether policy reforms were implemented more slowly or less successfully. And, in turn, this raises a number of other issues which are explored in what follows. These include evaluating the pluses and minuses of the 'postwar settlement' both in the short and the long run, reviewing supply-side policies relevant to the considering the implications of the decisions that Italy made with regard to the European integration agenda, and the possible reasons for the difficulties of implementing structural reforms, in particular after the Golden Age.

We end our analysis in 2007 on the eve of the crisis which we do not explicitly consider. In so far as Italy's difficulties during the present travails of the Eurozone have been exacerbated by inadequate public-finance and supply-side reforms our discussion of Italy's economic history provides some context for, although not an analysis of, these problems.

2. Italy in the Golden Age

It has become conventional in comparative studies of European economic growth to consider the period 1950-73 as the 'Golden Age'. This was a period of β-convergence in which European countries generally experienced rapid catch-up growth based on technology transfer and structural change and growth rates were inversely correlated with initial income levels. The basis of catch-up varied over time; initially, postwar reconstruction and reduction in the size of agriculture the agricultural sector played a part but, in general, by the later 1960s reductions in technology gaps were the main source (Temin 2002).

During the Golden Age, Italy enjoyed growth of real GDP per person at almost 5 per cent per year, as Table 5 reports. This largely reflects the relatively large scope for catch-up reflected in the low initial income level in 1950. However, normalizing for initial income, Italy outperformed its European peer group and growth was about 0.65 percentage points per year faster than might have been expected (Crafts and Toniolo 2008). Labour productivity growth averaged 6.8 per cent per year in industry and 5.7 per cent per year in agriculture during these years (Broadberry *et al.* 2010). The weight of agriculture in the economy fell rapidly; the sector accounted for 44 per cent of employment in 1951 but only 18 per cent in 1973.

Italy enjoyed a remarkably rapid rate of total factor productivity (TFP) growth at this time; from 1945 to 1973 the average was 5.8 per cent per year (Broadberry *et al.* 2010). As catch-up proceeded from a starting point of 'backwardness', in part, TFP growth came from reductions in inefficiency, especially resulting from the movement of labour out of agriculture, as Table 6 reports, and from the realization of substantial economies of scale (Rossi and Toniolo 1996). In part, TFP growth reflected successful technology transfer together with creative adaptation and localized learning at which Italy excelled (Antonelli and Barbiellini-Amidei 2009) even though the country did not have a national innovation system that exhibited high levels of R & D or rates of patenting. In the 1960s, Italy spent only about 0.6 per cent GDP on R & D (about 1/3 the West German level), and in 1973 obtained only 3.4 per cent of the foreign patents in the United States compared with a West German share of 24.2 per cent (Verspagen 1996; Pavitt and Soete 1982).

Human capital was on the whole favourable. While average years of schooling were low, 4.8 years in 1950 rising to 6.8 in 1970 (Morrisson and Murtin 2009), human capital was, however, suited to incrementally adapt the imported technologies which constituted the main channel of innovation. In comparative terms, Italy benefited from the high number of good engineers, who played an essential role in designing the organization of the productive processes in large firms. This expertise was inherited and further developed largely by public firms which were the main promoters of the convergence of the Italian industrial structure towards that prevailing in Europe (De Nardis and Traù 2005; Barca and Trento 1997). This evolution paralleled and complemented the earliest stages of the process driven by small-medium firms, often forming industrial districts specialized in traditional products, which accelerated dramatically later in the Seventies. The convergence process of the Golden Age was, however, incomplete: high-technology sectors were less well developed

than in the other major European economies, as is reflected in the trade performance data reported in Federico and Wolf (2010).

Clearly, moving to a trajectory of rapid catch-up growth was not automatic but required an appropriate institutional and policy framework, 'social capability' in the well-known terminology of Abramovitz (1986). In this regard, a key ingredient in Western Europe was the 'postwar settlement' which for most countries was reached in the context of the Marshall Plan.

It is not entirely clear how much difference the Marshall Plan made to early postwar Italy. It is unlikely that growth was much affected by the direct economic effects of the $1.5 billion which Italy received from the United States in the years 1948 to 1951, amounting to 2per cent of GDP compared with an average of 2.5 per cent for all countries (Eichengreen and Uzan 1992), but it may have been an important factor in deciding the distribution of the costs of stabilization, in supporting the modernization of industrial plants, especially in the electrical, steel and metals sectors (Fauri 2010), and in heading off a possible 'war of attrition' (Casella and Eichengreen 1994). It also added impetus to the move towards trade liberalization and the European Payments Union.

The main features of the postwar settlement in Italy were an early stabilization in 1947, a political constitution that embodied checks and balances, the isolation of a strong Communist Party, the progressive opening to international competition, and participation in the Bretton Woods system. Italy was at the forefront of the European integration process, moved relatively quickly to reduce barriers to international trade and joined the Bretton-Woods system at an undervalued parity.[1] These decisions were, of course, strongly influenced by the positioning of Italy in the Western bloc led by the US. At the same time, they were seen by the leading economic authorities (notably by Luigi Einaudi, the Governor of the Bank of Italy and, in 1947, Minister of the Budget) as useful steps in order to foster competition and to weaken the industrial oligopolistic groups.

However, unlike what happened in the United Kingdom in 1948 and later in Germany where competition authorities were created, on the domestic front this aim was not accompanied by corresponding attempts to implement competition policies; corporate governance structures remained closed, sectors sheltered from international competition (retail, professional orders, public utilities) highly regulated.

The domestic policy stance reflected the heterogeneous nature of the main political forces and interest groups. "Free market" supporters were in a minority – because of the prevailing ideological climate in Europe after the war and because of the Italian historical legacy – and had to face not only the isolated but socially influential communist and socialist opposition but also the hostility of an important component of the ruling party (the catholic Democrazia cristiana) which favoured an active role for the State in the economy. A similar confidence in the necessity of public intervention in promoting accumulation and a corresponding mistrust in the capacity of private groups of accomplishing this task shaped the ideas of the leading managers of the State-owned enterprises (IRI), among them Donato Menichella, general

[1] The parity of the lira was set at 625 per US dollar at the end of 1949. The US proposal of a more devalued parity was successfully resisted by the Italian government (Asso, Biagioli and Picozza 1995).

director of IRI in 1933-1944 and Governor of the Bank of Italy from 1948 to 1960. In fact, a distinctive feature of the postwar settlement was the preservation of the unusually large role played by firms and banks controlled by the State, but operating as private profit oriented autonomous entities, created in 1933 following the collapse of the big private financial and industrial groups. It was mainly the political acumen of the Prime Minister and leader of the Democrazia Cristiana, Alcide De Gasperi, that enabled a balance to be struck between these different forces, and between them and the interests of the private industrial firms.

After World War II, for the first time in Italian history, the South – since 1861 the most prominent structural issue of the Italian economy (Iuzzolino, Pellegrini and Viesti 2011) – became the object of systematic specific policies. As a matter of fact, at the outset of the Golden Age, the South benefited very little from ERP funds (Fauri 2010; Del Monte and Giannola 1978). The promotion of growth in the South was not a priority of the policy agenda (Cafiero 1996). However, two factors rapidly changed this picture. First, the acute social tensions in the huge Southern agricultural sector, largely based on large estates, greatly endangered political stability and therefore the integration of Italy in the Western bloc. Second, the influence and the quality of the IRI management which survived the end of fascism was a fundamental element in promoting a specific policy aimed at the reduction of the North-South gap. This policy, "l'intervento straordinario" (special development policy) was based on the principle of additionality with respect to "ordinary" policy (i.e., was targeted specifically at the backward areas and was therefore "extra" with respect to "ordinary" capital expenditure), and was conceived as a decisive part of Italian economic policy as a whole. It was animated by the belief that the closure of the income gap, far from being the long period outcome of market forces – as mainstream economist thought had maintained – had to be achieved by policy means. The growth of the South and of Italy was seen as one thing: this was the central idea animating the promoters of the special development policy and later of the structural-reform policy (programmazione) during the centre-left governments at the beginning of the 1960s (La Malfa 1962).

The main instrument of the special development policy, the "Cassa del Mezzogiorno", turned out to be a body independent from the Public Administration. [2] The autonomy from ordinary Public Administration was a feature of Italian economic policy in the Golden Age, not just regional policy. Not by chance, the most successful period of the Cassa coincided with this period. Between 1951 and 1973, the North-South gap in terms of GDP per head experienced a strong reduction for the first and only time in history.

In the Golden Age, the South had positive effects on the growth of the rest of Italy. Low-skilled and cheap labour, particularly suitable for the Fordist mode of production, poured from the Southern agricultural sector into the Northern plants. Especially prior to the creation of the European Common Market, the growing market in the South increased demand for Northern products. At the end of the 1950s, 70 per cent of net exports of the Center-North were directed towards the South. The growth of the domestic market allowed economies of scale to be realized in Northern firms (Iuzzolino, Pellegrini and Viesti 2011.)

[2] In the first years it was subject to the supervision of the International Bank for Reconstruction and Development which heavily financed the start - up of the "Cassa."

Trade liberalization was an important factor in Western Europe's Golden Age. Between the late 1950s and early 1970s, it raised the average growth rate by about 1 per cent per year (Badinger 2005). Countries which were slow to liberalize such as Spain and Ireland paid a price in terms of slower growth. In the Italian case, the move to greater openness facilitated a process of export-led growth as Italy's share of world manufactured exports rose from 3.7 per cent in 1950 to 6.8 per cent in 1973. The real exchange rate was kept low by the tendency for real wages to grow only a little faster than labour productivity in the context of an elastic supply of labour to manufacturing industries.[3] The consequent expansion of the tradeables sector raised its productivity through internal and external economies of scale; according to some estimates, undervaluation of 20 per cent on average during the 1950s and 1960s may have raised the growth rate by perhaps 1 percentage point per year at this time (Di Nino et al. 2010).

Eichengreen (1996) argued that catch-up growth in the European Golden Age was underpinned in many countries by a corporatist social contract which allowed a cooperative equilibrium in which wage restraint was rewarded by high investment which benefited both firms and their workers in the long run. A cross-country regression suggests that until the mid-1970s coordinated wage bargaining does appear to have raised investment and growth rates quite appreciably (Gilmore 2009) but this was only to a very limited extent the case for Italy. Wage moderation in Italy lacked these institutional underpinnings and should rather be seen as a result of weak union bargaining power where, as Lewis (1954) might have put it, labour supply was 'unlimited' as labour was re-deployed out of agriculture. But the high degree of political and ideological conflict (Salvati 2000), accompanied by the ruthless attitude of entrepreneurs keen to exploit their bargaining power, made this equilibrium potentially unstable. The first strike wave in the early 1960s and, to a much greater extent, the 'hot autumn' of 1969 signalled the end of this phase. The subsequent instability of industrial relations confirms the absence of the institutions of a co-ordinated market economy.

With regard to domestic supply-side policy, the postwar settlement was adequate for a process of rapid catch-up for a 'backward' economy to be launched but, later on, as Italy got closer to the frontier, this was no longer the case. This is epitomized by a distinctive feature of Golden-Age Italy, namely, the state-owned enterprises IRI, augmented by ENI in the energy sector from 1953. Initially, public enterprises were a route to speeding up investment and were given high managerial autonomy that meant they could achieve economic efficiency. In particular, IRI helped the development of the private machinery industry by providing cheap intermediate inputs; compensating for the weakness of private firms in this field was important. By the 1960s, however, public enterprises were increasingly hi-jacked for political purposes (Barca *et al.* 1998; Woods 1998). This degenerative process also involved the banks owned by IRI. Whereas in the 1950s and 1960s they allocated financial resources efficiently, in subsequent years they were hampered in selecting innovative firms by the growing influence of political networks.

[3] This was very much the case in the 1950s when for the industrial sector real wage and labour productivity grew at 5.36 per cent and 5.06 per cent, respectively; it was less so in the 1960s when real wage and labour productivity growth averaged 5.61 per cent and 4.45 per cent, respectively (Broadberry *et al.* 2010).

The postwar investment boom was largely financed from a high share of profits in national income. Italy possessed neither a CME bank-based nor an LME equity-based financial system but one in which corporate governance was largely based on family-controlled pyramidal groups, state-owned large firms and banks which were themselves very largely under state control (Pagano and Trento 2003). By the end of the Golden Age, as profits came under pressure, this resulted in major problems for the operation and financing of large firms (De Cecco and Ferri 2001).

The peak of the Golden Age was reached in 1958-1963 with the culmination of the 'economic miracle' that had turned Italy into an industrial economy, but there were emerging tensions that threatened instability, notably the potential conflict between sustaining growth on the basis of low wages and demands for higher consumption resulting from the successful economic development.

In 1963, at the end of the "economic miracle", monetary policy suddenly turned restrictive in the face of mounting balance of payments disequilibria and inflation pressures. These latter were driven by the first significant wage push in fifty years, in the context of the abatement of unemployment and a resurgence of union militancy. The policy reaction was successful in stopping wage increases and in avoiding a much feared devaluation and the economy managed to return to an equilibrium (albeit slower) growth path until the beginning of the next decade.

In retrospect, 1963 is also noteworthy because of new aspects of the design of economic policy similar in some ways to those emerging elsewhere in Europe. In many countries some sort of vaguely Keynesian-inspired income policies were attempted during the sixties (e.g., France, Denmark, Germany, United Kingdom). However, the most ambitious attempt was put forward in Italy, when the socialist party, previously under the communist influence, entered the government in 1963, forming a centre-left coalition. Since the economy had grown at incredibly high rates in the previous years, the general assumption was that this speed could easily be maintained and that the main task left for economic policy was to direct the resources produced by growth to favoured objectives. In order to achieve this result a macroeconomic programme (*programmazione)* was designed in order to tackle the main structural problems of the economy, namely, the North-South gap, welfare, anti-trust regulation and company-law reform. Incomes policy would ensure the sustainability of growth by preserving competitiveness and by keeping inflationary pressures under control. With the *programmazione* there was also an attempt to render industrial relations less adversarial by involving unions in discussions about the compatibility of wage dynamics with macroeconomic objectives and to pave the way for a coordinated market economy.

On the whole, the programme was heavily influenced by a dirigiste approach not uncommon in the European economic culture of the time. But, somehow paradoxically, this was also due to the intellectual contribution to the *programmazione* of the "liberal-socialisti", a small but very active group in the second half of the Fifties, aimed at introducing competition on the product and service markets, in particular in the public utilities, and at opening the structures of corporate governance of private firms. Both anticipated central themes of the policy debate decades later. At that time, the latter was successfully countered by the employers' organisation. The competition issue was tackled by the proposal to dismantle the existing monopolies not by ensuring a proper competition-promoting regulation of the

market but by nationalization of entire sectors. Whereas the case of failure of the market was acknowledged, the case of failure of the State was still to be taken into consideration.

The policy reform proved unrealistic, however, for a number of reasons. On the macroeconomic side, the momentum of growth gradually decreased. On the whole, firms encountered significant difficulties in speeding up innovation to compensate for the waning of the catch-up model based on 'unlimited' labour supply and on technological transfer. The growth of fixed investment, mainly aimed at implementing labour saving technologies, slowed down from 11 per cent on a yearly average in 1958-1963 to 5 per cent in 1964-1973. Current account surpluses (2 per cent of GDP on average at this time) were matched by capital outflows surging to $1 billion annually (Biagioli 1995) The first, by changing relative factor intensity, reflected the aim of containing the squeeze of profits due to the wage increases of 1961-1963; the second was the result not only of the search for financial instruments still unavailable on the Italian market but also to a considerable extent of an emerging fear of left-oriented policy measures.

The reform design dragged on during the entire decade and was never implemented. Incomes policy proposals ran up against the weakness of the reform culture of the communist opposition (Magnani 1997b), the targets set by the programmazione were not compatible with the inefficiency of public administration, the anti-trust regulation and company-law reform proposals were defeated by the consolidated interests of the large industrial groups (Barca 1997a; Ciocca 2007). Moreover, the ambition of the State to guide the market in strategic directions turned into a radical reduction of the autonomy of economic leaders, more and more subordinated to the greed of political lobbies and parties. The progressive contribution of state-controlled enterprises came gradually to an end, accentuating the 1970s crisis of large firms in the steel, energy and chemicals sectors which had led the convergence of the Italian industrial structure during the Golden Age.

The hot autumn of 1969 marked the clear failure of the incomes-policy approach advanced by the centre-left governments. Within a few years, the Italian economy went through a huge and persistent wage shock and through the oil shock. The macroeconomic context for reform worsened rapidly. Also, the development policy suffered clear setbacks at the end of the Sixties. The abolition of regionally-differentiated wage structures in national contracts raised relative Southern labour costs and reduced wage flexibility, although a partial compensation was found by charging employers' social-security contributions to the budget. Moreover, the construction of the first pillars of a modern national welfare state, in particular, in terms of pensions and health service, inevitably tended to reduce the amount of public resources available for the special development policy.

Was economic policy well-designed to exploit the favourable conditions of the Golden Age? In principle, two episodes seem particularly relevant in answering this question, namely, the postwar settlement in 1946-48 and the centre-left turn in 1963. The former we take to be mainly a product of the political circumstances of the time. The growth model that resulted delivered extraordinary results up to the early 1960s, even by the standards of the time. At the beginning of the Sixties political constraints were less severe, growth had produced an unprecedented volume of resources. In spite of its contradictions, the turn of 1963, we believe, represents a missed opportunity for reforms that would have improved subsequent economic performance.

The failure in 1963 to adapt institutions, regulations and the scope of public intervention in the economy to the new circumstances created by growth (end of the unlimited supply of labour, congestion costs, formation of a significant working class in the North, resurgence of union militancy) may be thought of as a clear reflection of a long-standing feature of Italian economic policy, i.e., the weakness of the reform policy culture, squeezed between the "alternative to the system", at that time cautiously but nonetheless firmly put forward by the main opposition party on the one hand and the defence of diffused particular interests on the other.

3. From the 1970s to the 1990s

After the early 1970s, growth slowed down quite markedly right across Europe, as Table 7 reports. The end of the Golden Age had a number of unavoidable aspects including the exhaustion of transitory components of fast growth such as postwar reconstruction, reduced opportunities to redeploy labour out of agriculture, narrowing of the technology gap, and diminishing returns to investment. TFP growth slowed down markedly. Moreover, the United States itself experienced a productivity growth slowdown. All-in-all, the scope for catch-up growth was much reduced, although by no means eliminated. In addition, in the face of both internal labour militancy and external oil-price shocks together with the collapse of the discipline of the fixed exchange rate system macroeconomic policymaking became much more difficult.

Indeed, from the end of the Golden Age, Western Europe's catch-up of the United States in terms of real GDP per person stalled. The European level was 68.3 per cent of the American level in 1973, 68.6 per cent in 1995 and 68.2 per cent in 2007. The picture in terms of labour productivity was different. Catch-up in terms of real GDP per hour worked continued until the mid-1990s and the European level rose from 63.3 per cent of the American level in 1973 to 85.1 per cent in 1995 but then retreated to 76.5 per cent by 2007. From the 1970s to the mid-1990s the discrepancy comes from a decrease in the amount of work done by Europeans compared with Americans, accounted for by a combination of rising unemployment, earlier retirement and longer holidays. The implications for economic welfare depend on how far these outcomes result from differences in preferences or distortions to markets from regulations, taxes etc. This remains unclear (Faggio and Nickell 2007).

Italy has had a similar experience but with some distinctive features; real GDP per person was 63.7 per cent of the level in the United States both in 1973 and in 2007 but had been higher at 69.9 per cent in 1995. The gap in labour productivity between Italy and the United States narrowed quite steadily between the end of the Golden Age and the mid-1990s but then widened appreciably; the ratio was 64.9 per cent in 1973, 81.8 per cent in 1995 and 67.6 per cent in 2007. The idiosyncratic Italian aspects that are a cause for concern are low female employment and high levels of inactivity among males over 55. These aspects have been a persistent feature of recent decades and do, at least partly, reflect distortions. Together, inflexibilities in labour markets that deny part-time employment opportunities and relatively low education attainments account for most of the difference in female employment levels compared with the European average (Del Boca *et al*. 2004) while early retirement for men

has been heavily incentivized by the pension system and an astonishingly high implicit tax on working after the age of 60 (Duval 2003).[4]

Although catch-up of the United States in terms of labour productivity continued, the rate of convergence slowed down (Crafts 2007). European countries struggled to cope with the aftermath of the macroeconomic turbulence of the 1970s, to embrace creative destruction in the context of the need to adjust to a changing world economy and to achieve rapid productivity growth in the increasingly dominant services sector. The Eichengreen wage-moderation model broke down (Cameron and Wallace 2002; Gilmore 2009) while regulation, taxation and expenditure on social transfers increased. While these policy shifts were understandable in the context of the pressures of the time and the legacy of the social contracts of the earlier postwar period, they tended to slow growth down. Kneller *et al.* (1999) estimated that an increase of 1 percentage point in the ratio of distortionary taxes to GDP slowed growth by 0.1 percentage point. Employment protection impeded growth in sectors intensive in the use of human capital and more innovative sectors (Conti and Sulis 2010). Product market regulation that inhibited competition slowed catch-up in TFP (Nicoletti and Scarpetta 2005). Tables 8, 9, and 10 indicate that there was cause for concern.

This account has resonance for Italy where the Golden-Age growth model had run out of steam. The service-sector now had a much increased weight and its performance became increasingly important. From 1973 to 1993, the share of employment in services rose from 43.9 to 62.2 per cent while the share in industry fell from 38.4 to 31.3 per cent but service-sector labour productivity growth averaged only 0.5 per cent per year during this period (Broadberry *et al.* 2010) and economy-wide TFP growth fell to 1.2 per cent per year.

In fact, Italy was notable in this period for a very high level of employment protection (Table 8), was slow to relax product-market regulation (Table 9) and hampered by regulatory procedures and costs, relatively high barriers to entry (Klapper *et al.* 2006, Bianco *et al.* 2011). The estimates in Nicoletti and Scarpetta (2005) suggest that slowness to deregulate product markets cost Italy about 0.7 percentage points per year in the 1980s and 1990s compared with adopting a stance similar to the most liberal OECD country while the estimates in Caballero *et al.* (2004) imply that employment protection slowed adjustment in Italy and has a labour productivity growth cost of about 0.3 percentage points per year in the period 1980 to 1998 compared with the economy with the least employment protection.

At the beginning of the 1970s, several factors tended in Europe to reduce optimal firm size (minimum efficient scale): the crisis of the Fordist organization of labour due to the antagonistic attitude of workers in large firms and their demands for higher wages, the diversification and specialization of demand, technological innovations which made equipment capital more flexible, and reduced benefits of vertical integration of production.

[4] Gordon (2008) points out that state-sponsored early retirement has very high costs in terms of reduced consumption which are clearly much greater than any gain in terms of additional leisure time.

International competition was now based more on product innovations and less on standardized mass production, notably in automobiles (Bianchi 2002).

These factors lay at the heart of the so called flexible-specialization model (Sabel 1982). Italian industry shared these general tendencies with particular intensity for two reasons. First, industrial structure was already characterized in the 1950s and 1960s by a relatively large share of small- and medium-size firms and by the prominence of industrial districts (Brusco and Paba 1997). Second, after the "hot autumn", large firms reacted by de-centralizing production because of rapidly increasing rigidities emerging in the production process at the shop-floor level.

The emergence of new small- and medium-size enterprises was concentrated mostly in their historical locations in the Centre and the North, shaping a sort of "regionalized model of capitalism" based on agglomeration economies, on local networks and non-market mechanisms of coordination (Trigilia and Burroni 2009), as well as on the accumulation of tacit knowledge (Antonelli and Barbiellini-Amidei 2009). By contrast, the weakness of indigenous entrepreneurship – the main failure of the special development policy – prevented the growth of flexible small-medium size firms in the South.

These latter (20-50 employees) were the main support of growth in industry during the 1970s, in the face of policy failures and growing macroeconomic imbalances. Their performance in terms of productivity, investment, production and profits turned out to be significantly better than that of large firms (Barca and Magnani 1989). Italy did, therefore, find a partial solution to mitigate inflexibility.

New social demands emerged. They were met by a progressive widening of the fiscal deficit. The level of Italian public debt had remained almost stationary until the end of the 1960s, well below 40 per cent of GDP. By 1980 it reached 60 per cent and in 1994, at its peak before the recent financial crisis, it amounted to 125 per cent of the national product (Fig.1). Italy is the only major European country where, after the substantial reduction registered in the first years after WW2, public debt relative to GDP climbed back to the values recorded in the second quarter of the century.

This rise stemmed from the strong increases of primary expenditures in the first half of the seventies (from 31.2 per cent in 1970 to 37.6 per cent of GDP in 1975), which, however, still remained below the levels registered in France and Germany. Social transfers rose from 13.1 per cent GDP in 1960 to 18 per cent GDP by 1980 (Table 10). Italy looks similar to many other European countries regarding the expansion of welfare, even if the gap to be filled with regard to demands for social spending was wider, given the low initial conditions. What is distinctive in Italy is that the adjustment was made by keeping fiscal pressure constant and thus by allowing a fiscal deficit to emerge which over time led to a rapid increase in the public debt to GDP ratio (Balassone *et al.* 2010). In the first half of the 1970s, intense social conflict discouraged counterbalancing revenue increases. It was politically more viable to let

public debt, inflation and the fiscal drag do the job of finding a new though unstable macroeconomic equilibrium.

Moreover, the composition of revenues became less favourable. Table 10 reports a substantial rise in distortionary taxation between the mid 1960s and the mid 1990s which went along with higher social transfers but also reflects the increased outlays for interest payments on the public debt. Research by the OECD suggests that a growth-friendly tax system will have low rates of corporate tax and collect a high proportion of its revenue from consumption taxes (Johansson *et al.* 2008). In both these respects, Italy was relatively badly placed. Against the general European trend, corporate income tax rates increased from 36 per cent at the end of the 1970s to 52 per cent in the mid 1990s while Italy had the lowest C-efficiency score for value-added tax in Europe.

The broad profile of monetary policies was similar in Italy and abroad; a tendency towards accommodation (actually more pronounced in Italy), followed at the end of the Seventies by a more restrictive stance in the context of the "Volcker turn" and participation in the European monetary system. According to the Governor of the Bank of Italy, Guido Carli, (Banca d'Italia 1975) monetary policy couldn't react effectively to the slackening fiscal discipline because this would have amounted to a "seditious act" against the State[5]. In fact, driven by enormous nominal wage increases (17 per cent on a yearly basis between 1971 and 1975; real wages increased by almost 5 per cent a year), the oil shock and the devaluation of the lira, prices exploded.

However, some authors believe that the degree of freedom in shaping macroeconomic policies was actually higher. Spinelli and Fratianni (1991), Andreatta and d'Adda (1985) and Onofri and Basevi (1997) underline that with a more market oriented policy culture it would have been possible to implement more virtuous policies in the aftermath of the first oil shock, as other European countries did. Their critique is severe; Italian economic policy in the Seventies was basically founded on the irrelevance of the public budget constraint, on the dependence of monetary policy on budget needs and on a dirigiste approach of public interventions.

Giavazzi and Spaventa (1989) argue instead that Italian macro-policy in the second half of the Seventies reduced the costs of disinflation later, because it delivered high profit margins and financed new capital equipment such that pressure could be more easily exerted on industry to reduce costs. Boltho (1986), noting the still positive growth differential between Italy and the other advanced economies, supports this argument, by pointing to the beneficial effects of expansionary policy during the whole decade on the development of small and medium size firms.

[5] With the support of the IMF there was a serious attempt in 1974 to impose monetary restriction as had been successfully done in 1963; however, in spite of initial improvements in the balance of payments and in inflation in the subsequent cyclical recovery, the monetary stance soon turned permissive.

In the second half of the seventies, in the middle of a dramatic crisis threatening the very survival of democracy, the participation of the communist party in the coalition supporting the government (1976-1979: "governi di solidarietà nazionale") allowed a deceleration of inflation and public debt growth; the willingness, albeit cautious, of trade unions to take into account the compatibility of wage dynamics with macroeconomic equilibrium induced wage moderation, increased profits and indirectly supported technological restructuring processes. In 1979, the coalition broke up. Within a short time span, entrepreneurs regained control of production processes in large firms, strengthened by the substantial labour-saving process innovations undertaken in the preceding years (Barca and Magnani 1989).

Around 1980, three events marked a turning-point in economic policy: the participation in the European Monetary System, the Bank of Italy-Treasury "divorce" (by which the Bank was freed from the obligation of buying the unsold public debt at Treasury auctions), which was aimed at inducing virtuous behaviour by the public sector by through increasing the cost of issuing new debt, and the introduction of a form of incomes policy, through the predetermination of automatic inflation-related pay rises in order to guide price expectations. The first decision represented an attempt to "force" a reduction of costs in the sector exposed to foreign competition via a partial and delayed realignment of the nominal exchange rate in response to the appreciation of the real exchange rate. The effectiveness of this policy with respect to that implemented in the first half of the 1970s is clearly shown by the different price dynamics after the two oil shocks in 1973 and 1979.

In the 1980s, the conditions for addressing macroeconomic disequilibria looked more favourable than in the 1970s. Governments could rely on stable majorities. The drastic fall in oil prices reduced inflation and increased, *ceteris paribus*, available resources. After 1983, the major economies entered a long expansionary cycle. The "wage-push age" was definitely over and the concept of incomes policy (Tarantelli 1981) was, even if painfully, gaining some ground[6]. Monetary policy, by pursuing flexibly an exchange rate target, was an important factor in reducing inflation from 1979 to 1986 (Gressani, Guiso and Visco 1987).

The adjustment was, however, incomplete. Inflation reached a low point in 1987 of slightly less than 5 per cent after the fall of oil prices but rose back to 6 per cent at the beginning of the nineties, two percentage points more than the European average, mainly because of the existence of strong competition barriers in the non-traded sector (Barca and Visco 1993) and a still excessive wage growth. During 1985-1991, the nominal exchange rate changed little; competitiveness, measured by goods prices, worsened by 12 per cent, in terms of unit labour costs by more than 15 per cent. The current account, balanced in 1986, weakened gradually to a deficit of 2 per cent of GDP in 1991. Firms were slow to react to competitive pressure

[6] However, the degree of the difficulties in progressing along this road is indicated by the fact that the main instigator of these proposals, Ezio Tarantelli, was assassinated by left-wing terrorists in 1986.

by improving the quality of products and shifting towards more innovation-intensive production.

The major obstacle to complete adjustment was the inability to deal with the public debt problem. Programmes to reduce deficits were regularly discarded. Though there was some progress in the final years of the decade, primary deficits generally remained substantial (Fig.2). Public debt rose further from 60 percent of GDP in 1980 to more than 100 per cent in 1991. The foreign sector purchased significant amounts of State bonds attracted by the stability of the exchange rate and high interest rates. The negative net investment position of the country climbed up to more than 10 per cent of GDP.

The long-term implications of allowing the debt ratio to increase so much are unfavourable for growth, as is highlighted in particular by growth models of the overlapping-generations variety. The adverse impacts can occur through a number of transmission mechanisms including reductions in market-sector capital formation, higher long-term interest rates and higher tax rates. Empirical research on advanced economies has found negative effects; for example, Kumar and Woo (2010) estimate that a 10 percentage point increase in the initial debt to GDP ratio is associated with a fall of about 0.2 percentage points in growth. It has also been suggested that the adverse effect on growth becomes substantial once the debt ratio reaches a critical level which has recently been claimed to be around 90 per cent of GDP (Checherita and Rother 2010).

The risks inherent in the rising public debt ratio were clearly perceived, as shown by the continuous attempts to reduce the fiscal unbalances. There was no effective policy reaction because of the structural weakness of political power, more and more dependent on a multitude of powerful interest groups, unions often included.[7] The failure to address the increase in public debt in a far better macroeconomic context than that of the 1970s must to be considered as a major missed opportunity.

In the period between the end of the Golden Age and the beginning of the Nineties the special development policy for the South got into growing difficulties; the reduction of the income gap came to a halt. The oil shock, the changing technological and competitive framework, and the increased rigidity of the labour market made this policy less and less effective (Iuzzolino *et al.* 2011). The progressive decline of IRI disproportionately reduced the efficiency of investments in the South, where the State-controlled firms played a decisive role. A similar degeneration process undermined the Cassa per il Mezzogiorno, whose technical autonomy and authority were put in question. Last, but not least, the attribution of

[7] This historical feature of Italian society is sharpened especially by the progressive loss of influence of traditional popular parties, in particular – but not only – the Christian Democratic party that had ruled the country since 1945, which in the past had managed at least partially to reconcile the different demands by taking into account the conditions for sustainable growth.

relevant powers to the newly constituted Regions increased significantly the costs of coordination of regional policies and made local lobbies more powerful.

Special development policy tended gradually to replace rather than add resources to the ordinary State policy. From the beginning of the Seventies up to 1992, total net current public transfers in the South became more negative by 3 percentage points of its GDP, from -3.5 to -6.5 but in the rest of the country they plunged from -13 to -20 per cent of GDP of these regions. Including labour income, in the South often reflecting a disguised social assistance policy, net public resources flowing to the South increased slightly from 11 to almost 12 per cent of GDP; those pouring out from the Centre-North from -3 to -10 per cent of GDP (Magnani 1997a). The divergence in public net flows was not due mainly to expenditures but to taxes, these latter directly related to the level of incomes in the two parts of the country. However, what matters more is the fact that the composition of public expenditure flowing into the South started to shift more and more in favour of current transfers and labour income, with negative effects on the growth prospects of the Southern economy on the one hand and the national public budget on the other (Cannari and Chiri 2006; Staderini and Vadalà 2009). An implicit redistribution of resources therefore took place in the aftermath of the extension of the welfare state to the whole country. From being a factor supporting Italian growth, the relative stagnation of South gradually became a drain on public resources.

To sum up, supply side adjustments in the 1970s were much more limited than elsewhere in Europe because of the policy constraints resulting from the social and political emergency. In the subsequent decade, the long shadow of the Seventies mainly took the form of a lack of political leadership in subduing the pressure of interest groups which was a precondition for ensuring a sustainable path for the public finances. The crisis of 1992 exploded because of a combination of factors affecting the whole EMS (Eichengreen 2000) and the failure to correct the above-mentioned disequilibria. Italy was forced to exit the EMS. This crisis finally did induce some long overdue macro adjustments.

4. From the 1990s to the Eve of the Crisis

After the mid-1990s the western European catch-up of the United States in terms of labour productivity ceased. Whereas between 1973 and 1995 real GDP/hour worked grew at 2.6 per cent per year in Europe and 1.3 per cent in the United States between 1995 and 2007 these growth rates were 1.2 and 2.1 per cent, respectively. So, the end of catch-up reflected both European slowing down and American speeding up. At about this point, employment started to grow faster than population in Europe but it no longer did so in the United States and the potential of ICT for productivity increased considerably, a potential that was more fully realized by the American than the European economy. ICT expenditure as a share of GDP averaged 2.2 per cent in the late 1990s compared with 4.0 per cent in the United States and in Sweden (Timmer and van Ark, 2005) and productivity growth was especially weak in the service sector, averaging only 0.2 per cent year between 1993 and 2007 (Broadberry *et al.* 2010), where ICT had strong effects in the United States. These developments were important as proximate sources of the turn round in relative productivity performance.

To quite a large extent, productivity growth in Italy reflected these tendencies. The growth of real GDP per hour worked fell from 2.35 per cent in 1973-95 to 0.46 per cent in 1995-2007 while the growth of hours worked per person went from -0.14 to +0.87 (Table 11). This latter can be expected to have reduced labour productivity growth in the short to medium term if investment failed to respond and the additional workers were lower quality; (Dew-Becker and Gordon 2008). Nevertheless, productivity growth was very disappointing even by European standards, suggesting that there was more to it than this.

This poor performance came even though Italy went through a period of major policy reforms during the 1990s including privatization, anti-trust, banking and company law reforms which seemed appropriate as moves in the direction of reform required by a higher level of economic development. The 1992 crisis added momentum to reform and "the entire political system born after World War II came to an end" (Pagano and Trento 2003, p.199). The big devaluation of the lira in 1992-1995 delivered a sharp improvement of competitiveness and confidence was for the time being restored. Significant progress was made in reducing the public debt to GDP ratio which declined from 125 per cent in 1994 to 103 per cent in 2004.

We need, therefore, to confront the puzzle of why growth performance deteriorated rather than improved. There seem to be two key reasons for this. First, Italy was relatively badly placed to exploit the opportunities of the ICT era. The diffusion of this new technology was hindered by the small size of firms, oppressive regulation, and shortfalls in human capital by comparison with the European leaders in the take up of ICT. Second, supply-side reform did not go far enough especially given the context of joining the Eurozone. In several respects, including the legal system, competition policy, regulation and privatization, reforms were either incomplete or inadequately implemented.

The international evidence is that the diffusion of ICT has been significantly inhibited in countries which are heavily regulated. Employment protection has been shown to deter investment in ICT equipment (Gust and Marquez 2004) because reorganizing working practices and upgrading the labour force, which are central to realizing the productivity potential of ICT, are made more expensive. Restrictive product market regulation has deterred investment in ICT capital directly (Conway *et al.* 2006) and the indirect effect of regulation in raising costs has been relatively pronounced in sectors that use ICT intensively. There has been a strong correlation between product market regulation and the contribution of ICT-using services (notably distribution) to overall productivity growth (Nicoletti and Scarpetta 2005). The general story is not that regulation has become more stringent but rather that existing regulation became more costly in the context of a new technological era.

This account clearly has resonance for Italy. Italy entered the ICT era with relatively high levels of regulation, albeit decreasing over time as reforms took place (Tables 8 and 9). The estimates in Tables 12 and 13 indicate that investment in intangible capital has been low and that the productivity growth contributions both of ICT capital and also of intangible capital have been very modest. International comparisons confirm that ICT investment has been held back in Italy by regulation and a shortfall in human capital (Conway *et al.* 2006).

Microeconomic studies of Italian manufacturing confirm this picture while adding further insights as to why diffusion of ICT had been relatively slow in Italy. The take-up of ICT has been strongly correlated with firm size and changes in organizational structure (Fabiani *et al.* 2005). In this context, Bugamelli and Pagano (2004) found that many firms appear to be constrained in their ICT investment by the adjustment costs associated with reorganization, especially if their workforce has relatively low levels of human capital. These reflect regulatory burdens but, because they are fixed costs, they bear very heavily on the small- and medium-size firms that have been central to Italy's distinctive variety of capitalism.[8]

Turning to supply-side policy reforms, there are a number of shortfalls that deserve to be highlighted. One major point is that their effectiveness in promoting competition has been insufficient. The retail sector is an important example. Labour productivity growth in retailing was 0.8 percent per year in 1995-2002 compared with 7.4 per cent in the United States and 1.6 per cent in the EU15 (McGuckin *et al.* 2005). It is clear that productivity performance was still impaired by regulation; barriers to entry and mark-ups in retailing remained high on average with adverse consequences for TFP (Daveri *et al.* 2010). However, in districts where competition was stimulated by the 1998 regulatory reform both ICT investment and labour productivity increased (Schivardi and Viviano 2011).

The competition-policy framework established in the 1990s has been rated below average relative to OECD countries using criteria relating to political independence, toughness and

[8] In the mid-1990s, mean employment in Italian manufacturing firms was only 42 per cent of the EU15 average (Pagano and Schivardi 2003).

investigative powers with the implication that productivity growth has been adversely affected (Buccirossi *et al.* 2009), low-efficiency producers continued to survive in many sectors (Milana *et al.* 2008), and mark-ups in the service sector as a whole remained high (Table 9). Failure to de-regulate professional services, where in 2008 Italy still had the tightest product-market regulation in Europe after Luxembourg, has had significant adverse effects on the productivity of sectors for which they are important inputs (Barone and Cingano 2011). On the contrary, the reform process was successful in the banking sector where competition increased significantly.

The volume of privatization in Italy was impressive; in terms of the proceeds, second only to the UK during the period 1979 to 1999. However, it was mainly aimed at reducing public debt. Only 30 per cent of the value of transactions involved a transfer of control, opportunities to introduce competition in utilities like electricity and gas were missed, and regulation was inadequate. There were improvements in operating efficiency in sectors exposed to competition but not in sheltered sectors where it appears that privatization was simply conducive to increased quasi rents as market power was exploited more fully (Barucci and Pierobon 2007).[9]

While, on the surface, reforms to corporate governance might have enabled an effective market for corporate control, in practice changes in ownership and control structures (pyramids have been replaced by coalitions) have been quite limited, private benefits of control seem to have remained high, and the number of listed companies has increased only slightly (Bianchi and Bianco 2006). Bloom and van Reenen (2008) found that the quality of management in Italian companies in 2006 was below leading international standards, largely as a result of weak competition and family control, with adverse implications for productivity performance. The effectiveness of company law reforms has been limited by established interests and the deep rooted Italian difficulty of linking economic and legal culture (Ciocca 2007).

The supply-side reform agenda has been also undermined by the inadequacy of the legal system (Bianco *et al.* 2008; Carmignani and Giacomelli 2010) and the ineffectiveness of the government. The low rankings of Italy in the World Bank's *Governance Indicators* reported in Table 14 underline this point. Similarly, Italy has a low 'ease of doing business' ranking (80^{th} in the most recent year) in the World Bank's *Doing Business* report with enforcement of contracts seen as especially poor (157^{th}) [10].

Other important factors for long run growth are of course less responsive to policy, at least in the short run. In spite of progress, especially after WWII, the gap in human capital, measured

[9] Sheltered sectors include energy companies, banks, municipal utilities, airport management companies, Autostrade, and Telecom Italia.

[10] It should be recognized that there are substantial regional variations in bureaucratic burdens on business within Italy; they are generally more onerous in the South and the Islands (Bianco and Bripi 2010).

by the number of years of education, remained significant compared with the other advanced countries. The percentage of persons aged 25 to 64 who attained at least an upper secondary education was around 32 per cent in the second half of the 1990s, almost ten points below OECD average. With respect to tertiary education, the gap widened: 12 per cent vis-a-vis 24 per cent (OECD 2010).

Whereas in terms of the quantity of education Italy has slowly caught up, quality has lagged behind. The evidence provided by student competencies is quite clear in this regard. The picture is especially worrying with regard to cognitive skills as measured by performance in international tests such as the OECD PISA studies. Italy now ranks very low, especially in mathematics, and its average performance has been declining steadily since the mid-1970s in stark contrast with countries like Finland and Sweden (Hanushek and Woessmann 2009). The econometric evidence suggests that this has exacted a serious penalty in terms of an adverse effect on growth.

Among the possible reasons for the relatively low quality of education in Italy, we must exclude a shortfall in educational spending; on the contrary, Italy spends more per student than many countries which achieve much better results. Instead, a relaxation of educational standards in the 1970s and an inability to achieve coherent reforms seem to have played a significant role (Bertola and Sestito 2011). Moreover, international comparisons show that efficiency of schooling resources is enhanced by accountability, autonomy in hiring decisions, and effective competition within the school system which all raise standards (Woesmann *et al.* 2007). The issue is the organization of the school system which has been ineffective in addressing principal-agent problems in the delivery of education. Examined through this lens, Italy has lagged behind other countries especially in terms of lack of autonomy of schools in providing incentives and sanctions to teachers; in recent years, accountability has been weakened through not having external exit exams (Boarini 2007). In the Golden Age, given the prevailing technology, the lack of formal education was not a serious constraint on growth because informal knowledge formation such as on-the-job training compensated. However, at more advanced stages of technological development, the gaps in formal education, in particular tertiary education, have mattered because it is essential in fostering innovation (Bertola and Sestito 2011).

Another important structural factor potentially hindering growth is Italy's 'anomalous' position in international trade which has its roots in the strength of small and medium-sized firms producing in industrial districts (De Benedictis 2005). Revealed comparative advantage for Italy exhibits high persistence. Compared with other G7 economies Italy's exports remain skewed towards low-tech and labour-intensive sectors such as textiles and footwear and away from hi-tech activities. This means that Italy is more exposed to

competition from China and other dynamic Asian economies and is less well-placed to benefit from fast-growing sectors in world trade (Lissovlik 2008) while export performance, especially in distant markets, is held back by the small average size of Italian firms (Barba-Navaretti *et al.* 2011).

The implications of the historical legacy reflected in this trade configuration should not be exaggerated. The 'market-crowding' impact on export growth has been much smaller than relatively slow growth in the EU15 (Italy's main market), and trends in the real exchange rate (Breinlich and Tucci 2010). There has been an adverse trend in the terms of external trade but the effect only reduced real income growth by 0.1 percentage point over the ten years to 2006 (Bennett *et al.* 2008). Over time, however, the Italian economy is being subjected to a greater need to adjust to the changing international division of labour than countries like France, Germany or the UK. The big issue here concerns the flexibility of the relatively Italian economy; an index recently compiled by OECD economists places Italy 24th out of 26 countries in terms of ability to cope with globalization.[11]

European integration moved forward in the 1990s culminating in the establishment of the European Monetary Union in 1999. Despite forced exit from EMS in 1992, Italy became a founder-member of the Eurozone. The decision to join EMU sought to introduce competitive pressures into the system in order to stimulate efficiency improvements and thus to promote growth even in the short run via a general improvement of expectations, thereby counterbalancing at least partially the deflationary effects of the huge correction to the public deficit implemented in order to join EMU.

In conjunction with the decision to participate in EMU, a radical reform of regional policy took place, benefiting from the strong EU commitment to regional and social convergence. The basic aim was to spur growth of the whole country by refuelling the catching-up process of the South, which had been interrupted in the 1970s, to offset the loss of the exchange-rate policy instrument and the severe fiscal clampdown to meet the Maastricht criteria. A new regional policy was launched, centred on a place-based approach which looked at innovation as the primary driver of development so as to enhance the potential comparative advantages of the Southern regions.

Participation in EMU was a major change in the framework for macroeconomic policy: inflation and nominal interest rates converged rapidly towards the European average. For the first time in 30 years, price stabilization was finally achieved.

It also had, however, supply-side implications through the intensification of competition. EMU membership can be thought of as a commitment technology; put differently, 'Italian vices are overcome by importing European virtues', as Guido Carli, Governor of the Bank of

[11] The index reflects regulation, education and skills, labour market flexibility, the innovation framework and active labour market programmes (Rae and Sollie 2007).

Italy, 1960-1975, and Minister of the Treasury, 1989-1992, emphasized retrospectively (Carli 1996). With better macroeconomic discipline, interest-rate convergence, and improved prospects for fiscal sustainability, investment could respond positively. Overall, then, it might be hoped that joining the Euro could be good for growth. In any event, Italy's participation in EMU amounted to achieving the goal of the postwar generation of Italian leaders, anxious to anchor Italy within Europe. It was ultimately a political decision as it was the creation of EMU.

At the same time, EMU membership was not a risk-free strategy, especially for a country with weak productivity growth and a high public debt to GDP ratio, given that the Eurozone is not an optimal currency area and the European Central Bank's choice of interest rates might not be ideal from an Italian point of view. There clearly were dangers from a loss of international competitiveness and this has materialized. During 1999-2009, the real exchange rate measured by prices of production in the manufacturing industry appreciated by 7.5 percentage points, compared with an appreciation of 5 points in France and no change in Germany. The loss of competitiveness in the whole economy measured in terms of unit labour costs was higher at 13 percentage points, compared with a loss of 5 percentage points for France and a gain of 13 percentage points for Germany.

Ex-post, the experience of EMU membership has been much less comfortable than had been hoped ex-ante. The benefit to fiscal sustainability anticipated from reduction of the gap between the interest rate and the growth rate is threatened by the ineffectiveness of supply-side reform, weak productivity performance, the loss of competitiveness, and fears about the political will to maintain budget discipline. Investment and growth are potentially undermined rather than stimulated by a high real exchange rate and debt overhang. The growth rate up to the outbreak of the financial crisis (1999-2008) was half of that of the Euro area and of the average for the period 1980-1999.

One question obviously arises. Did a superior policy alternative exist? Would growth prospects have been more favourable in the case of non-participation? Would it have been easier to implement the necessary structural adjustments? The analysis put forward in the previous sections suggests that the answer to all these questions is no. The experience of the 1970s is especially helpful in this regard. At that time, the structural weaknesses of the Italian economy, though less relevant because of the more favourable competitive and technological context, were already quite evident. The (much-used) freedom of manoeuvre granted by the floating exchange rate did not trigger any substantial policy interventions aimed at correcting them. On the contrary, the outcome was an unstable macroeconomic framework marked by inflation and fiscal laxity, two factors notably pernicious for growth in the medium-long run. Either inside or outside EMU, supply-side reforms conducive to raising the rate of productivity growth were required; the pressure to make them would have been weaker without the prospect of joining the Euro. On the other hand, the consequence of

not reforming well enough may eventually be more severe if a sovereign debt crisis is precipitated.

6. Conclusions

In a nutshell, the main point of this paper is that, after the Golden Age, Italy experienced increasing difficulties in adjusting its economy to the changing external context and to the requirements for sustaining catch-up growth at a higher level of economic development. The adjustment issue is common to advanced countries but the difficulties experienced in Italy look particularly severe. The point is both that Italy had a greater need for reform after the success of the early postwar period and that Italy had more problems in making effective reforms.

In the Golden Age it was different. The Italian performance in terms of growth and productivity was spectacular even taking account of the catching up effect. The postwar settlement was heavily conditioned by the external policy environment but the main policy choices were not disrupted by the harsh conflicts, reflecting somehow the sense of national responsibility of the political and economical leadership emerging from the war. The wage moderation determined by the unlimited labour supply in the agricultural sector, the features of human capital particularly suited to the existing technologies, the impulse to industrialization given directly and indirectly by the large state owned firms, the effective allocation of resources provided by the banks controlled by the State, the capacity of private entrepreneurs in enhancing their performance especially in the traditional sectors, the liberalization of trade and participation in the Common Market were all growth-promoting factors.

At the beginning of the 1960s, after the "economic miracle", this model was put under pressure and attempts to correct the destabilizing forces generated by the model itself failed. The wage and the oil shock around 1970 on the one hand and the decline of Fordism on the other engendered everywhere in Europe – albeit in different forms and at varying speeds – macro and micro adjustment processes. Italy changed relatively little. Having arrived near to the technology frontier, the economy proved too slow to adjust to the new context, in spite of the success in mitigating inflexibilities by developing a regionalized model of capitalism based on small and medium firms.

Cushioned by inflation and devaluation, growth remained relatively high in the 1970s. In the subsequent decade, in spite of improved conditions for addressing macroeconomic disequilibria (the long expansionary cycle of the major economies, the end of the "wage push era", the deceleration of inflation, the new monetary policy after joining the EMS) structural adjustments were neglected, in particular with regard to fiscal discipline and competition policies in sheltered sectors. The catching up of the South came to a halt.

Major supply side reforms were eventually implemented in the aftermath of the 1992 crisis and also in connection with the policies undertaken in the EU. Nevertheless, in the second half of the decade growth fell below the EU average. These reforms were an important step in the right direction but ultimately fell short of what was required. While increasing the

pressure for adjustments through price and exchange-rate stability and more stringent constraints on fiscal policy – participation in EMU did not help as far as the improvement of growth prospects was concerned. Clearly, this has made Italy's position in terms of fiscal sustainability weaker and has therefore made the country more vulnerable in the crisis which has erupted since 2007.

Why did policy reform prove unable to stimulate growth? More specifically, what were the major difficulties in implementing sufficient structural adjustments after the Golden Age, in spite of the growing awareness of their necessity? These are the crucial questions we must try to answer. We can tentatively list a number of not unrelated reasons.

The first refers to a long standing feature of Italian society, i.e., the existence and severity, except for very limited periods, of conflicts between opposing groups and parties. In part, but by no means only, these were connected to the big ideological divide between the strong communist-oriented opposition and the ruling parties. Reforms in the history of the country are rare; much more commons are periods of violent conflicts or of policy stalemates because of the veto power of the opposing actors. In the 1970s, this feature stands out most clearly and made reform almost impossible. In the 1980s, the 'divided society' started to take other forms, less based on (declining) ideologies and more on the gradual proliferation of many consolidated interest groups, each one seeking to gain rents at the expense of others. This basically explains the inadequacy of the adjustment in public finances.

After the fall of the Berlin Wall – we come here to the second possible reason – the demise of the two main parties, the Communists and the Christian Democrats, worsened the picture. It may seem paradoxical in the light of the end of the ideological divide, but these two forces were somehow able, each one within its area of influence, to represent the different interests of their constituencies in a policy vision which reached beyond them and looked at the perspectives of the country as a whole. Their disappearance strengthened instead the emergence of distributional coalitions at the expense of encompassing organizations (Olson, 1982) and stabilization (Alesina and Drazen 1991).

The third reason concerns firms. Their capability to exploit favourable conditions varied through time. They were able to do so during the Golden Age thanks to the low wages and to the opening of the economy to external competition. In the 1970s, they overcame the emergency because of devaluation and generous fiscal policy; at the end of the decade large firms were able to renew the capital stock while small firms reacted by developing an original locally-based model. Later, however, when the technological context started to change and required more product innovations, more ICT investments and corresponding changes in the organization of the production process, Italian firms got into increasing difficulties which still continue. The difficulty of achieving efficient allocations of entrepreneurial resources resulting from closed corporate governance structures centred on family-controlled and pyramidal groups proved to be a major competitive handicap in this

context. The gradual elimination of the exchange rate lever in the face of mounting competition from the emerging markets and the increased stringency of fiscal policy could not be overcome. One can, of course, argue about the relative importance of firm endogenous and contextual factors but there seems to be little doubt that there is a historically-rooted weakness of large private firms in Italy compared with other major European countries. The importance of state-owned enterprises (born from the ashes of the large industrial and financial private conglomerations) between the 1930s and the 1990s – a unique case in Western Europe – indirectly reflects this fact. In any case, whatever the historical reasons, this implies a greater need for supply-side policy reform compared with elsewhere.

The fourth reason is related to this conclusion. There might be a structural problem in the implementation of change because of a lack of political leadership in reforming the Public Administration to increase its effectiveness. The importance of and the reasons for this have been widely debated during the whole history of united Italy and invests all the domains of economic policy. We conjecture that this weakness is related to the increasing influence of interest groups which invade both the Public Administration and the polity. In any event, since the quality of institutions and public services are important for growth, especially in the context of coping with globalization, lagging behind on this front entails serious risks.

The disappointing performance of the South in the last thirty years shows this very clearly because it is in these regions that these lags are mostly concentrated. The funds employed were remarkable, comparable with those of the golden years of special development policy. However the new policy failed to meet its ambitious objectives mainly because of the inadequacy of national policies, whose target is the whole national territory rather than regional policy per se (Cannari, Magnani and Pellegrini 2010). Education, justice, security are growth and productivity promoting factors. Their weakness explains much of the unsatisfactory performance of the Italian economy. The *Doing Business* indicators reported in Table 15, which are strictly related to the quality of public services and administration, are in the South even weaker than in the rest of Italy, and far below the average of European countries. The factors hindering growth of the Southern economy in the last twenty years are of the same nature of those which curb the Italian economy as whole. In the South they are, however, more powerful. In this sense, the Southern question is today more than ever the magnifying mirror of Italy's difficulties.

The poor quality of public services brings us to the final point, i.e. the changes in the political institutional design so as to increase the possibility of taking substantial policy decisions. The theme has quite a tradition in the political economy literature. The issue concerns the relationship between political institutions and the functioning of the economy. In particular, it has been often argued that the electoral rule is an important factor for the economic performance of a country (Persson and Tabellini 2005). In Italy, the crisis of 1992 marked the end of the so called First Republic. Widespread criticism was addressed in

particular to the strictly proportional electoral law for its alleged feature of producing a plethora of parties, thus often not allowing the government to rule with the necessary stability because of the power of even small players and the resulting tendency to look for compromises and even to change majorities in order to survive. The principle of "alternation" was invoked, so that clear policy options could be implemented by the winning coalitions during their mandate. A majority rule was introduced in 1993; it remained in force till 2005, when it was replaced by an adjusted proportional system. The results of the majority rule in terms of stability of the governments and the number of parties were, however, not encouraging (Bordignon and Monticini 2011). This suggests that easy solutions in terms of institutional engineering do not exist as far as the structure of the political system and, a fortiori, as far as the capacity to implement structural economic reforms are concerned.

Table 1. Trade Costs: Italy with various partner countries

	Germany	***UK***	***Spain***	***USA***	***India***
1929	1.10	1.22	1.63	1.26	1.54
1950	1.27	1.36	2.40	1.40	1.97
1960	1.01	1.25	1.54	1.29	2.00
1970	0.79	1.21	1.42	1.22	2.30
1980	0.61	0.86	1.08	1.13	1.86
1990	0.56	0.84	0.87	1.13	1.85
2000	0.66	0.90	0.87	1.14	1.83

Notes: trade costs are inferred from a gravity model of trade flows and comprise both policy and non-policy barriers to trade; world average trade costs normalized to 1950 = 100 were 98 in 1970, 82 in 1980 and 84 in 2000.

Source: data underlying Jacks et al. (2011) generously provided by Dennis Novy

Table 2. Capital Account Openness and Foreign-Owned Assets/World GDP (per cent)

a) Capital Account Openness

	World Average		***Italy***
1890-1913	99.7	1950/4	37.5
		1955/9	50
1949	42	1960/4	67.5
1950s	53	1965/9	75
1960s	55	1970/4	75
1970s	47	1975/9	75
1980s	50	1980/4	75
1990s	68	1985/9	85
2000-5	78	1990/4	92.5
		1995/9	100

b) Foreign-Owned Assets/World GDP

1870	7
1914	18
1945	5
1960	6
1980	25
2000	92

Sources: capital account openness from Quinn (2003) and data appendix to Quinn and Toyoda (2008); foreign-owned assets/world GDP from Obstfeld and Taylor (2004).

Table 3. Shares of World Output and World Exports of Manufactures (per cent)

a) Output

	1953	***1973***	***1990***	***2007***
Western Europe	26.1	24.5	32.9	22.4
North America	46.9	35.1	23.4	25.7
Japan	2.9	8.8	16.8	16.5
China	2.3	3.9	2.7	11.2
India	1.7	2.1	1.5	1.6
Other Asia	1.0	3.1	4.9	8.6
Rest of World	19.1	22.5	17.8	14.0

b) Exports

	1953	***1973***	***1990***	***2007***
Western Europe	51.9	55.9	54.2	40.8
North America	35.8	16.1	15.2	11.9
Japan	2.9	9.6	11.5	6.7
China	0.1	0.6	1.9	11.9
Rest of Asia	1.6	4.5	11.1	16.5
Rest of World	7.7	13.3	6.1	8.3

Sources: output from Bairoch (1982), United Nations (1965) and UNIDO (2002) (2009); exports from United Nations (1958) (1976) and WTO (2001) (2008)

Table 4. Real GDP Measured at Purchasing Power Parity

a) Levels and Growth Rates of Real GDP/Person

	1950 ($GK 1990)	***1973 ($GK 1990)***	***2007 ($GK 1990)***	***Growth Rate, 1950-73 (per cent p.a.)***	***Growth Rates, 1973-2007 (per cent p.a.)***
Western Europe	4569	11392	21589	4.05	1.91
USA	9561	16689	31357	2.45	1.88
Japan	1921	11434	22950	8.07	2.07
China	448	838	6303	2.76	6.12
India	619	853	2817	1.41	3.57
Asian Tigers	955	3631	21212	5.98	5.34
World Average	2111	4083	7468	2.91	1.80

b) Shares of World GDP (per cent)

	1950	***1973***	***1990***	***2007***
Western Europe	26.2	25.6	22.2	17.5
North America	29.2	24.0	23.3	20.8
Japan	3.0	7.8	8.6	5.9
China	4.5	4.6	7.8	16.8
India	4.2	3.1	4.0	6.4
Other Asia	4.8	5.2	8.0	10.2
Rest of World	28.1	29.7	26.1	22.4

Source: Maddison (2003) with updates from website.

Table 5. Levels and Rates of Growth of Real GDP/Person in Western European Countries, 1950-73
($1990GK and per cent per year)

	Y/P 1950	***Y/P 1973***	***Growth Rate, 1950-73***
Switzerland	9064	18204	3.08
Denmark	6943	13945	3.08
UK	6939	12025	2.42
Sweden	6739	12494	3.06
Netherlands	5971	13081	3.45
Belgium	5462	12170	3.54
Norway	5430	11324	3.24
France	5186	12824	4.02
West Germany	4281	13153	5.02
Finland	4253	11085	4.25
Austria	3706	11235	4.94
Italy	3502	10634	4.95
Ireland	3453	6867	3.03
Spain	2189	7661	5.60
Portugal	2086	7063	5.45
Greece	1915	7655	6.21

Source: The Conference Board (2011)

Table 6. Contribution of Structural Change to Labour Productivity Growth, 1950-73 (per cent per year)

	Orthodox Measure	***Broadberry Measure***
Denmark	0.24	1.10
France	0.00	0.52
Italy	0.83	1.77
Netherlands	-0.31	0.29
Spain	0.80	1.77
Sweden	0.00	0.60
UK	-0.12	0.31
West Germany	0.18	0.77

Note: the orthodox approach considers that the contribution of structural change equals $\Delta A_O/A_O - \Sigma\Delta A_i/A_i * A_i/A_O * S_i$ where A is labour productivity, S is share of employment and the subscripts O and i stand for the whole economy and sector i, respectively (Nordhaus, 1972). Broadberry (1998) modified this so that labour productivity growth in declining sectors is measured using the overall rate of labour force growth not the sectoral rate.

Source: derived from van Ark (1996) based on a three-sector decomposition (agriculture, industry, services) where agriculture is deemed to be the declining sector.

Table 7. Levels and Rates of Growth of Real GDP per Person and per Hour Worked, 1973-1995 ($GK1990 and per cent per year)

a) Real GDP/Person

	Y/P 1973	*Y/P 1995*	*Growth Rate, 1973-95*
Switzerland	18204	20627	0.58
Denmark	13945	20350	1.74
Sweden	13494	17648	1.23
West Germany	13153	19849	1.92
Netherlands	13081	18700	1.65
France	12824	18206	1.61
Belgium	12170	18270	1.87
UK	12025	17586	1.75
Norway	11324	21578	2.96
Austria	11235	17959	2.16
Finland	11085	15970	1.88
Italy	10634	17216	2.21
Spain	7661	13132	2.48
Greece	7655	10321	1.37
Portugal	7063	11614	2.29
Ireland	6867	12734	2.85

b) Real GDP/Hour Worked

	Y/HW 1973	*Y/HW 1995*	*Growth Rate, 1973-95*
Sweden	18.01	23.13	1.15
Switzerland	17.86	21.92	0.95
Belgium	17.42	30.37	2.56
Netherlands	17.32	27.75	2.17
West Germany	16.05	30.83	3.01
Denmark	15.88	26.98	2.44
France	15.63	29.02	2.85
Norway	15.06	29.82	3.15
Italy	14.58	24.29	2.35
UK	13.37	24.33	2.76
Austria	13.20	23.50	2.66
Finland	11.60	22.36	3.03
Spain	9.92	22.21	3.72
Portugal	9.33	13.60	1.74
Ireland	8.18	17.21	3.43
Greece	8.07	11.63	1.68

Note: estimates for Ireland are based on GNP

Source: The Conference Board (2011)

Table 8. Employment Protection (0-4)

	1960	***1980***	***2000***	***2008***
Austria	1.10	1.92	2.21	1.93
Belgium	1.38	3.21	2.18	2.18
Denmark	1.90	2.30	1.50	1.50
Finland	2.30	2.30	2.09	1.96
France	0.75	2.80	2.98	3.05
Germany	0.80	3.21	2.34	2.12
Greece			3.50	2.73
Ireland	0.00	0.90	0.93	1.11
Italy	3.45	3.60	2.51	1.89
Netherlands	2.70	2.70	2.12	1.95
Norway	2.91	2.91	2.56	2.69
Portugal		4.00	3.67	3.15
Spain	4.00	3.87	2.93	2.98
Sweden	0.00	3.50	2.24	1.87
Switzerland	1.00	1.00	1.14	1.14
UK	0.27	0.60	0.68	0.75
USA	0.21	0.21	0.21	0.21

Sources: Nickell (2006) and OECD (2010)

Table 9. Product Market Regulation (0-6) and Price-Cost Margins

	PCM	***PCM***	***PMR***	***PMR***	***PMR***	***PMR***
	Manufactures	***Services***	***1975***	***1990***	***1998***	***2008***
Austria	1.15	1.28	5.2	4.5	2.33	1.45
Belgium	1.10	1.20	5.5	5.3	2.17	1.43
Denmark	1.11	1.25	5.5	4.7	1.59	1.06
Finland	1.18	1.27	5.5	4.6	2.08	1.19
France	1.12	1.26	6.0	5.2	2.52	1.45
Germany	1.13	1.25	5.2	4.6	2.06	1.33
Greece			5.7	5.7	2.99	2.37
Ireland			5.7	5.0	1.65	0.92
Italy	1.15	1.38	5.8	5.8	2.59	1.38
Netherlands	1.13	1.24	5.6	5.6	1.66	0.97
Norway	1.13	1.26	5.5	4.5	1.85	1.16
Portugal			5.9	5.3	2.25	1.43
Spain	1.14		5.1	4.7	2.55	1.03
Sweden	1.11	1.17	4.5	4.4	1.93	1.30
Switzerland			4.1	4.2	2.48	1.18
UK	1.11	1.16	4.8	3.0	1.07	0.84
USA	1.12	1.19	3.7	2.3	1.28	0.84

Sources: PMR indicator for 1975 and 1990 from Conway and Nicoletti (2006) and for 1998 and 2008 from Wolfl et al. (2009); the 1975 and 1990 numbers are not comparable with those for the later years. Price-cost margins from Hoj et al. (2007) refer to the mid-1990s.

Table 10. Distortionary Tax Revenues and Social Transfers (%GDP)

a) Distortionary Tax Revenues

	1965	*1980*	*1995*	*2007*
Austria	21.2	26.7	29.6	30.1
Belgium	19.5	30.0	32.4	32.3
Denmark	17.8	27.0	33.1	32.5
Finland	17.3	23.2	31.8	29.9
France	21.3	30.0	31.2	31.2
Germany	21.2	27.3	26.8	25.3
Greece	10.0	13.9	18.6	20.6
Ireland	11.8	18.0	19.6	22.2
Italy	15.4	21.8	29.2	30.0
Netherlands	22.4	31.3	31.3	26.2
Norway	17.4	27.5	25.2	31.4
Portugal	8.8	12.6	19.2	21.8
Spain	8.7	17.9	22.9	27.4
Sweden	24.1	35.7	34.8	34.6
Switzerland	11.5	19.5	21.7	22.3
UK	20.3	24.9	22.7	25.5
USA	19.1	21.7	22.9	23.2

b) Social Transfers

	1960	*1980*	*1995*	*2007*
Austria	15.9	22.6	26.6	26.4
Belgium	13.1	23.5	26.4	26.5
Denmark	12.3	25.2	28.9	26.1
Finland	8.8	18.4	27.4	24.6
France	13.4	20.8	28.3	28.4
Germany	18.1	23.0	26.6	25.2
Greece	10.4	11.5	19.3	21.3
Ireland	8.7	17.4	18.4	18.5
Italy	13.1	18.0	19.8	24.9
Netherlands	11.7	24.1	22.8	20.1
Norway	7.8	16.9	23.5	20.8
Portugal		10.8	18.1	22.5
Spain		15.5	21.5	21.6
Sweden	10.8	28.6	32.5	27.3
Switzerland	4.9	13.9	17.5	18.5
UK	10.2	16.6	20.4	20.5
USA	7.3	13.3	15.4	16.2

Note: distortionary taxes as defined in Kneller et al. (1999) and refer to direct taxes; Ireland in 1995 and 2007 as %GNP.

Sources: Lindert (2004), OECD (2010b) (2011)

Table 11. Levels and Rates of Growth of Real GDP per Person and per Hour Worked, 1995-2007 ($GK1990 and per cent per year)

a) Real GDP per Person

	Y/P, 1995	Y/P, 2007	Growth
Norway	21578	28553	2.36
Switzerland	20627	24781	1.55
Denmark	20350	25060	1.76
Netherlands	18700	24405	2.24
Belgium	18270	23487	2.12
France	18206	22282	1.70
Austria	17959	23744	2.36
Germany	17672	21143	1.51
Sweden	17648	25381	3.07
UK	17586	23620	2.49
Italy	17216	20163	1.33
Finland	15970	24635	3.67
Spain	13132	17869	2.60
Ireland	12734	23338	5.18
Portugal	11614	14601	1.93
Greece	10321	15860	3.64

b) Real GDP per Hour Worked

	Y/HW,	Y/HW,	Growth
Belgium	30.37	35.74	1.37
Norway	29.82	36.72	1.69
France	29.02	35.44	1.69
Netherlands	27.75	33.84	1.67
Denmark	26.98	30.52	1.03
Germany	25.10	30.78	1.72
UK	24.33	31.65	2.22
Italy	24.29	25.63	0.46
Austria	23.50	28.68	1.68
Sweden	23.13	31.32	2.56
Finland	22.36	30.42	2.60
Spain	22.21	23.43	0.64
Switzerland	21.92	25.82	1.38
Ireland	17.21	26.01	3.50
Portugal	13.60	15.62	1.16
Greece	11.63	16.78	3.10

Note: Ireland is GNP

Source: The Conference Board (2011)

Table 12. Investment in Intangibles in the Market Sector, 2006 (%GDP)

	Computerized Information	***Innovative Property***	***Economic Competencies***	***Total***
Austria	0.89	3.14	2.42	6.46
Czech Republic	0.71	2.80	2.93	6.45
Denmark	1.87	3.06	2.93	7.86
France	1.42	3.18	3.30	7.90
Germany	0.73	3.59	2.84	7.16
Greece	0.34	0.62	0.63	1.59
Italy	0.64	2.21	2.19	5.04
Slovakia	0.37	1.76	2.39	4.53
Spain	0.79	2.78	1.90	5.47
UK	1.55	3.16	5.84	10.54
USA	1.61	4.37	5.50	11.48

Source: van Ark *et al.* (2009)

Table 13. Market Sector Growth Accounting with Intangibles, 1995-2006 (% per year)

	ICT K/L	***Non-ICT K/L***	***Intangible K/L***	***Labour Quality***	***TFP***	***Labour Productivity***
Austria	0.26	-0.02	0.55	0.22	1.35	2.36
Czech R	0.35	1.62	0.68	0.31	1.64	4.60
Denmark	0.44	0.24	0.72	0.17	0.53	2.11
France	0.12	0.31	0.48	0.40	0.69	2.00
Germany	0.20	0.48	0.38	-0.15	0.88	1.79
Greece	0.45	1.48	0.24	0.71	0.40	3.27
Italy	0.11	0.29	0.12	0.22	-0.45	0.29
Slovakia		2.72	0.21	0.46	2.78	6.17
Spain	0.19	0.49	0.12	0.64	-0.96	0.47
UK	0.63	0.28	0.69	0.22	1.23	3.06
USA	0.40	0.24	0.83	0.18	1.33	2.96

Note: intangibles investments are part of final output and ICT K included with non-ICT K in Slovakia

Source: van Ark *et al.* (2009)

Table 14. Governance Indicators (-2.5 to 2.5)

a) 1996

	Government Effectiveness	***Regulatory Quality***	***Control of Corruption***	***Rule of Law***
Austria	1.984	1.154	2.120	1.841
Belgium	1.935	0.971	1.350	1.406
Denmark	2.027	1.213	2.222	1.828
Finland	2.114	1.089	2.221	1.914
France	1.755	0.766	1.353	1.520
Germany	2.006	1.072	2.134	1.633
Greece	0.836	0.746	0.511	1.098
Ireland	1.732	1.224	1.486	1.589
Italy	0.919	0.649	0.505	1.050
Netherlands	2.056	1.285	2.178	1.734
Norway	2.064	1.063	2.216	1.928
Portugal	0.999	1.028	2.015	1.276
Spain	1.570	0.878	1.248	1.354
Sweden	2.010	1.075	2.203	1.763
Switzerland	2.146	1.082	2.166	1.946
UK	1.884	1.469	2.171	1.662

b) 2007

	Government Effectiveness	***Regulatory Quality***	***Control of Corruption***	***Rule of Law***
Austria	1.776	1.649	2.049	1.928
Belgium	1.502	1.365	1.303	1.297
Denmark	2.235	1.855	2.426	1.964
Finland	1.907	1.511	2.408	1.861
France	1.433	1.255	1.433	1.378
Germany	1.606	1.549	1.698	1.698
Greece	0.661	0.850	0.319	0.798
Ireland	1.614	1.780	1.727	1.735
Italy	0.333	0.869	0.270	0.403
Netherlands	1.708	1.735	2.159	1.738
Norway	1.978	1.331	1.925	1.905
Portugal	0.902	1.084	0.990	1.007
Spain	0.960	1.186	1.008	1.083
Sweden	1.942	1.569	2.206	1.855
Switzerland	1.966	1.620	2.134	1.816
UK	1.622	1.801	1.716	1.658

Note: indicators are normalized such that the median = 0 in each year and so are not strictly comparable over time

Source: World Bank. Governance matters indicators

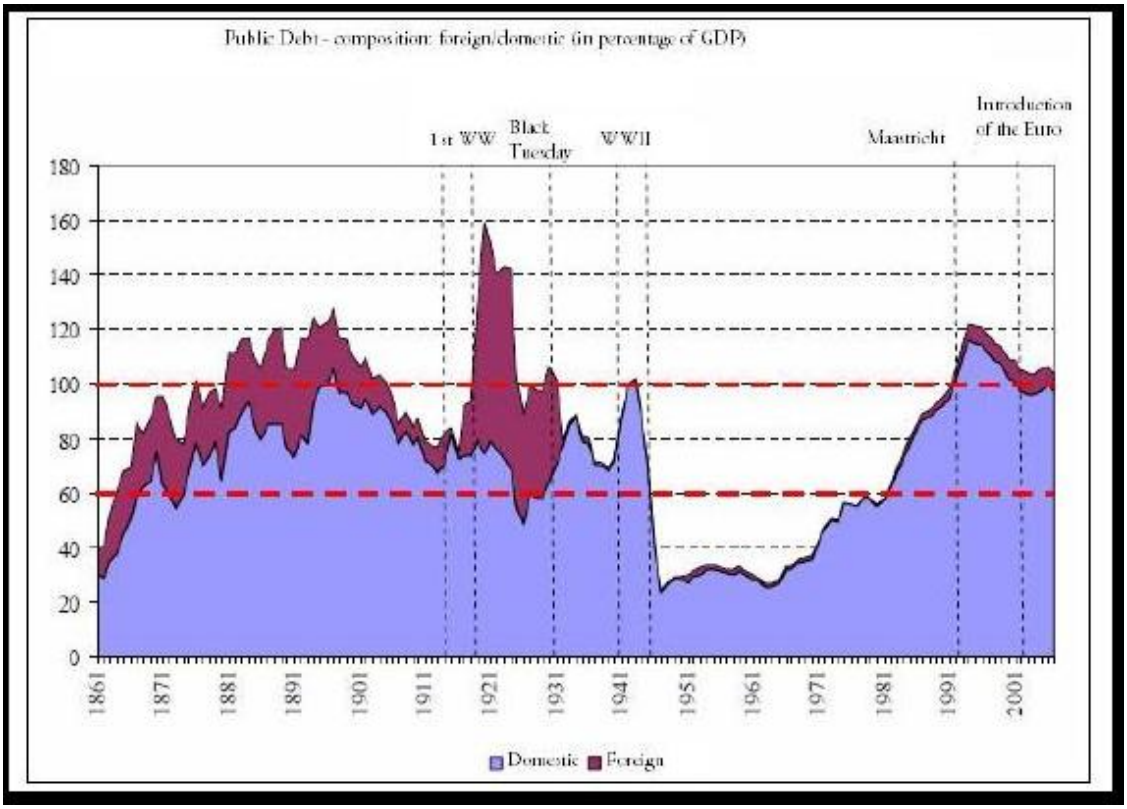
Table 15. Doing Business Indicators: Time needed to complete procedures

DB 2008 (1)				
Country	***Starting a Business***	***Dealing with Licenses***	***Registering Property***	***Enforcing Contracts***
	Time (days)	***Time (days)***	***Time (days)***	***Time (days)***
Austria	28	194	32	397
Belgium	4	169	132	505
Denmark	6	69	42	380
Finland	14	66	14	235
France	7	137	123	331
Germany	18	100	40	394
Greece	38	169	22	819
Ireland	13	209	38	515
Italy (Rome)	13	257	27	1210
Netherlands	8	230	7	514
Norway	7	252	3	310
Portugal	7	327	42	577
Spain	47	233	18	515
Sweden	15	116	15	508
Switzerland	20	154	16	417
UK	13	144	21	404

DB Italy (2008) (2)				
Area	***Starting a Business***	***Dealing with Licenses***	***Registering Property***	***Enforcing Contracts***
	Time (days)	***Time (days)***	***Time (days)***	***Time (days)***
Italy NW	13,2	414,8	10,6	1826
Italy NE	13,3	442,3	10,4	1866
Italy Centre	12,1	355,5	11,2	2095
Italy South & Islands	25,3	585,0	12,2	2140

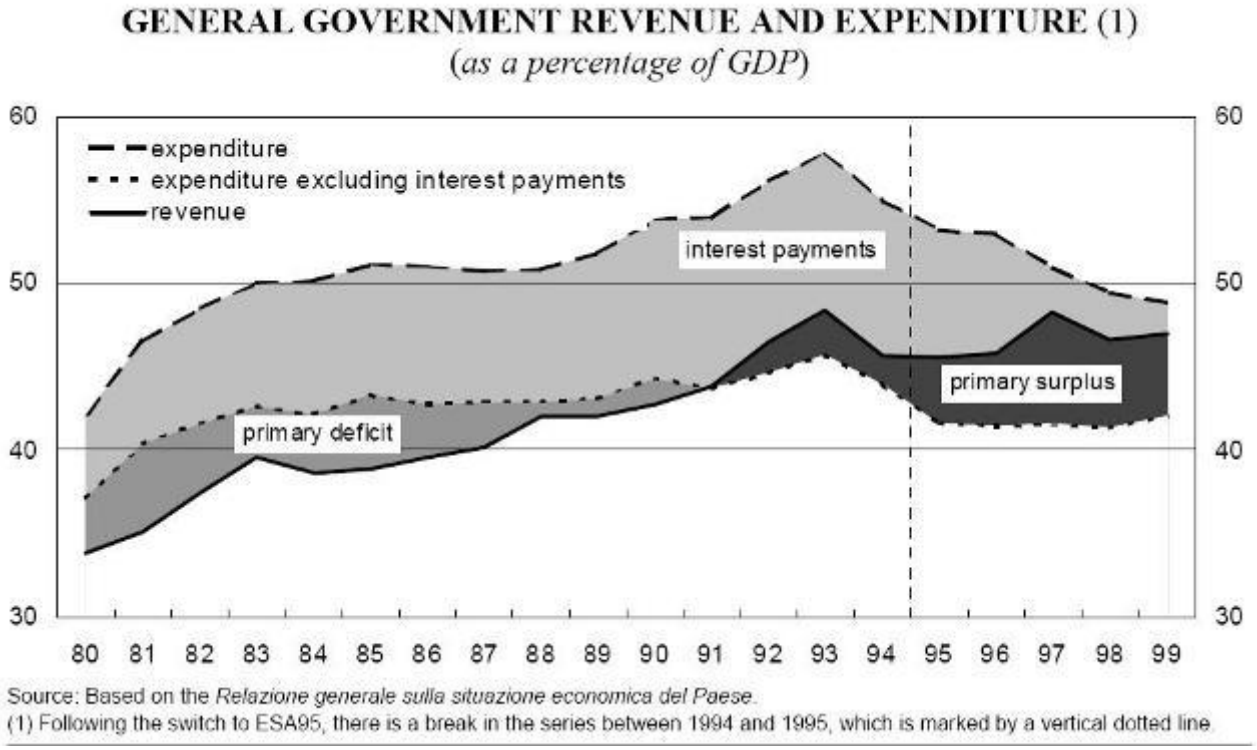
(1) Source : World Bank Doing Business ((2) Source: Bianco, e Bripi, F., "Administrative Burdens on Business Activities: Regional Disparities", Giornale degli Economisti, Vo. 69, num. 2 (Luglio 2010) pp. 37-79.Weighted averages of regional values in the area (using regional GDP as weights)

Fig.1



Source: Balassone, Francese and Pace (2010)

Fig.2



Source: Banca d'Italia (2000)

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